AMENDMENT TO THE CLAIMS

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1. (Currently Amended) A method of promoting the rate of hematopoietic cell multiplication, comprising administering an effective amount of a CXCR4 antagonist to hematopoietic cells, wherein the CXCR4 antagonist comprises SDF-1[P2G] (SEQ ID NO: 1) or a fragment or analog thereof, or comprises 3-hydroxy-2-napthoic acid.

2. (Original) The method of claim 1, wherein the hematopoietic cells are hematopoietic stem or progenitor cells.

3. (Currently Amended) A method of increasing the circulation of hematopoietic cells in a patient in need of such treatment, comprising administering to the patient an effective amount of a CXCR4 antagonist to mobilize the hematopoietic cells from a marrow locus to a peripheral blood locus, wherein the CXCR4 antagonist comprises SDF-1[P2G] (SEQ ID NO: 1) or a fragment or analog thereof, or comprises 3-hydroxy-2-napthoic acid.

4. (Currently Amended) The method of claim 1, further comprising introducing a heterologous ~~gene~~ nucleic acid sequence encoding SDF-1[P2G] (SEQ ID NO: 1) or a fragment or analog thereof into the hematopoietic cells for gene therapy for promoting the rate of hematopoietic cell multiplication.

5. (Withdrawn)

6. (Original) The method of claim 1, wherein the hematopoietic cells are *in vivo*.

7. (Original) The method of claim 1, wherein the hematopoietic cells are selected from the group consisting of hematopoietic stem cells and hematopoietic progenitor cells (including CFU-GEMM, BFU-E, CFU-Meg, CFU-GM, CFU-M/DC CFU-E_O, CFU-Bas, Pro-B cells and lymphoid stem cells), that are known to differentiate into mature myeloid and lymphoid blood cells, including erythrocytes, platelets, neutrophils, monocytes, macrophages, dendritic cells (myeloid and lymphoid related),

eosinophils, basophils, mast cells, B cells. and T cells.

8. (Original) The method of claim 1, wherein the CXCR4 antagonist comprises a CXCR4 antagonist peptide.

9. (Currently Amended) The method of claim 8, wherein the CXCR4 antagonist peptide is selected from the group consisting of:

KGVSLSYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVC IDPKLKWIQEYLEKALN (SEQ ID No. 1);

KGVS**P**SYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVC IDPKLKWIQEYLEKALN (SEQ ID No. 2);

KGVSL**P**YRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVC IDPKLKWIQEYLEKALN (SEQ ID No. 3);

KGVSLS**P**RCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCI DPKLKWIQEYLEKALN (SEQ ID No. 4);

KGVSLSY**P**CPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCI DPKLKWIQEYLEKALN (SEQ ID No. 5);

~~KGVS**P***SYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQV CIDPKLKWIQEYLEKALN (SEQ ID No. 6);~~

~~KGVSL**P***YRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQV CIDPKLKWIQEYLEKALN (SEQ ID No. 7);~~

~~KGVSLS**P***RCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQV CIDPKLKWIQEYLEKALN (SEQ ID No. 8);~~

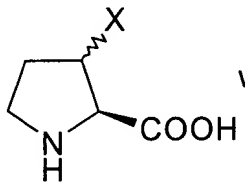
~~KGVSLSY**P***CPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQV CIDPKLKWIQEYLEKALN (SEQ ID No. 9);~~

~~KGVS**Btd**YRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQV CIDPKLKWIQEYLEKALN (SEQ ID No. 10);~~

~~KGVSL**Btd**RCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVC IDPKLKWIQEYLEKALN (SEQ ID No. 11);~~

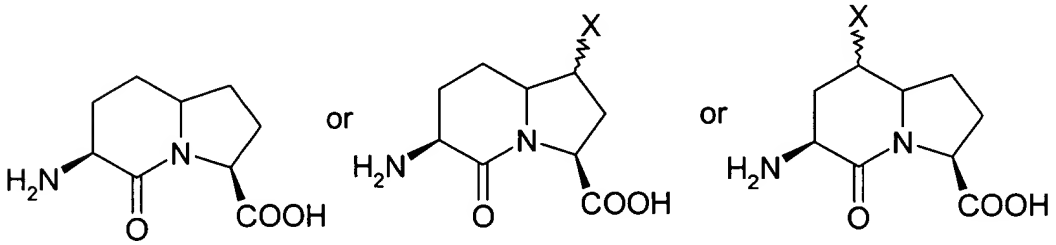
~~KGVSLS**Btd**CPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVC IDPKLKWIQEYLEKALN (SEQ ID No. 12);~~

wherein P* =



with X= Ar, Ar-OH, alkyl and more

and Btd =



X= Alkyl, Ar, Ar-OH and more

10-20. (Withdrawn)

21. (Currently Amended) A method of treating a cancer in a patient in need of such treatment comprising administering an effective amount of a CXCR4 antagonist to the patient to promote the rate of hematopoietic cell multiplication, wherein the CXCR4 antagonist comprises SDF-1[P2G] (SEQ ID NO: 1) or a fragment or analog thereof, or comprises 3-hydroxy-2-napthoic acid, and wherein the administering

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comprises treatment of the cancer.

22. (Canceled)

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